

### Remarks

This application has been carefully reviewed in light of the Final Office Action mailed November 16, 2004. Claims 1-24 are pending in the Application. Claims 1-9 and 19-24 are allowed; Claim 10 is rejected; and Claims 11 and 12 are amended. Applicant respectfully requests reconsideration and favorable action of all pending claims in view of the following remarks.

### Allowable Subject Matter

Applicant appreciates the indication in the Office Action that Claims 1-9 and 19-24 are allowed. Applicant also appreciates the indication at page 5 of the Office Action that "Claims 11-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim." Applicant has rewritten Claims 11 and 12 in independent form as indicated and are therefore allowable. Claims 13, 16 and 18 depend from Claim 12 and are therefore allowable, and Claim 17 depends from Claim 16 and is therefore allowable. Favorable action is requested.

### Rejections Under 35 U.S.C. § 102

The Office Action rejects Claim 10 under 35 U.S.C. § 102(b) as being anticipated over U.S. Patent No. 5,889,487 to Burns et al. ("*Burns*"). Applicant respectfully traverses this rejection for the reasons discussed below. Claim 10 recites in part "said quantum jump in magnitude from said first value to said second value taking an interval of time" and "a second portion having a sampling portion with a sampling input for receiving a signal to be sampled, said sampling portion responding to said quantum jump in magnitude of said electrical signal characteristic from said first value to said second value by causing said sampling portion to sample a signal at said sampling input **during a time period which is approximately equal in duration to said interval of time.**" *Burns* fails to disclose such a limitation, and the Office Action does not even assert that such a limitation is disclosed in *Burns*. Rather, *Burns* involves the use of a resonant tunneling diode in a latch device, but does not appear to disclose a sampling portion that samples a signal during a time period that is approximately equal in duration to the interval of time in which the quantum jump in

magnitude occurs. Rather, the sampling in *Burns* appears to occur on the positive edge of each clock pulse at the clock rate. There is no disclosure in *Burns* that this sampling occurs during a time period that is approximately equal in duration to the interval of time in which the quantum jump in magnitude is made.

In rejecting Claim 10, the Office Action states that "[t]he control currents are produced in response to a periodic clock signal that causes the circuit to acquire new input analog **samples** on the positive edge of each clock pulse at the clock rate" and that "the full value of the central current when added to the high logic level is sufficient to trigger the associated latching device." But no disclosure is cited in *Burns* that the sampling occurs during a time period that is approximately equal in duration to the interval of time in which the quantum jump in magnitude is made. For at least this reason Claim 10 is allowable. Reconsideration and favorable action are requested.

**Conclusion**

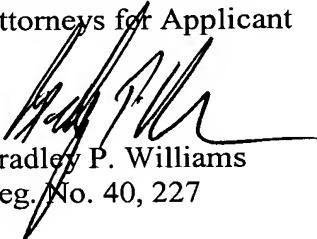
Applicant has now made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other apparent reasons, Applicant respectfully requests of all pending claims

If the Examiner feels that prosecution of the present Application may be advanced in any way by a telephone conference, the Examiner is invited to contact the undersigned attorney at 214-953-6447.

A check in an amount of \$400.00 made payable to the Commissioner of Patents and Trademarks is attached hereto for adding two (2) independent claims. The Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

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